AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for creating a narrow linewidth hybrid semiconductor laser comprising:

using a ring resonator in combination with external feedback elements that use Bragg gratings.

2. (Cancelled).

3. (Cancelled).

4. (Cancelled).

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5. (Original) The method of claim 1 wherein said external feedback elements comprise of a waveguide.

6. (Original) The method of claim 5 wherein said waveguide is made of silicon-oxide and silicon-oxinitride.

7. (Original) The method of claim 1 wherein said ring resonator is based on plasma enhanced chemical vapor deposition silicon-oxide/silicon-oxinitride waveguide technology.

8. (Original) The method of claim 1 wherein said ring resonator further comprises a waveguide ring and two straight waveguide sections.

9. (Original) The method of claim 8 wherein said waveguide ring and said two straight waveguide sections are coupled through evanescent wave interaction.

10. (Original) The method of claim 2 wherein the reflection band of said Bragg gratings is matched with one of the resonator peaks.

11. (Original) The method of claim 10 wherein said matching is accomplished by depositing a heater element on the top of said ring resonator.

12. (Currently Amended) An apparatus for creating a narrow linewidth hybrid semiconductor laser comprising:

the use of a ring resonator in combination with external feedback elements that use Bragg gratings.

13. (Cancelled).

14. (Cancelled).

15. (Cancelled).

16. (Original) The apparatus of claim 12 wherein said external feedback elements comprise of a waveguide.

17. (Original) The apparatus of claim 16 wherein said waveguide is made of silicon-oxide and silicon-oxinitride.

18. (Original) The apparatus of claim 12 wherein said ring resonator is based on plasma enhanced chemical vapor deposition silicon-oxide/silicon-oxinitride waveguide.

19. (Original) The apparatus of claim 12 wherein said ring resonator further comprises a waveguide ring and two straight waveguide sections.

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20. (Original) The apparatus of claim 19 wherein said waveguide ring and said two straight waveguide sections are coupled through evanescent wave interaction.

21.(Original) The apparatus of claim 13 wherein the reflection band of said Bragg gratings is matched with one of the resonator peaks.

22.(Original) The apparatus of claim 21 wherein said matching is accomplished by depositing a heater element on the top of said ring resonator.